

# Primary sequence of the mouse ribosomal protein L37a

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Newcastle disease virus (NDV)-mediated induction of the interferon (IFN) A, B, tumor necrosis factor- $\alpha$ , and interleukin-6 genes *in vivo* and in cells of hematopoietic origin *in vitro* is affected by the mouse genotype (1–4). In mice carrying the If-1<sup>h</sup> allele (e.g., C57BL/6), the levels of IFN in both splenocytes and sera, after injection of NDV, are 10- to 15-fold higher than in strains carrying the IF-1<sup>l</sup> allele [e.g., the BALB/c and HW81 (B.6C H-28c; IF-1<sup>l</sup>)].

To identify the genes which may be involved in modulating IFN production in If-1<sup>h</sup> and If-1<sup>l</sup> mice, we have constructed a subtracted cDNA library according to the method described by Duguid and Dinauer (5), in which cDNAs prepared from the spleen mRNAs of C57BL/6 and HW81 mice were used as tester and driver, respectively. One of the cDNA clones whose expression is significantly higher in the spleen of C57BL/6 than in HW81 mice, was found to share sequence similarity with the rat ribosomal protein L37a (6). The coding regions show 97% identity on the DNA level. The amino acid sequences are identical. The sequence alignment is shown in Figure 1.

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mrp137a          GGC TTC GGT TCC GGC GAC
rrp137a          .....

M A K R T K K V G I V G K Y
mrp137a ATG GCT AAA CGC ACC AAG AAG GTC GGC ATC GTC GGC AAG TAG
rrp137a .....G .....A ..A ...

G T R Y G A S L R K M V K K
mrp137a GGG ACC CGC TAT GGT GCC TCC CTC CGG AAA ATG GTG AAG AAA
rrp137a .....

I E I S Q H A K Y T G S F C
mrp137a ATT GAA ATC AGC CAG CAC GCC AAG TAC ACT TGC TCC TTC TGT
rrp137a .....T .....

G K T K M K R R A V G I W H
mrp137a GGC AAG ACC AAG ATG AAG AGA CGA GCC GTC GGC ATC TGG CAC
rrp137a .....T .....

C G S C M K T V A G G A W T
mrp137a TGT GGT TCC TGC ATG AAA ACA GTG GCC GGT GGG GCC TGG ACC
rrp137a .....

Y N T T S A V T V K S A I R
mrp137a TAG AAC ACC ACC TGT GCA GTC ACA GTG AAG TCT GCC ATC AGA
rrp137a .....T .....

R L K E L K D Q *
mrp137a AGA CTG AAG GAA CTG AAA GAG CAG TAG AAG CGC TGC TGT CTG
rrp137a .....G .....A. _ .C. _..

mrp137a AGA CTT GCC TAG CCT GCA ATA AAC GGG TTA TTT_ACG T
rrp137a .....G. T. ....T ... C.. A..T..A CA

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Figure 1.

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